REMARKS

The Official Action mailed March 18, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on June 8, 2006; September 18, 2006; February 20, 2008; and June 24, 2008.

Claims 1-12 are pending in the present application, of which claims 1, 7 and 9-12 are independent. Claims 1, 4 and 7-12 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 1 of the Official Action provisionally rejects claims 7 and 12 under the doctrine of obviousness-type double patenting over claim 6 of copending Application Serial No. 10/581,667. As is discussed in greater detail below, claims 7 and 12 have been amended to better recite the features of the present invention. In light of this amendment, the Applicant respectfully traverses this ground for rejection and reconsideration of the pending claims is respectfully requested.

As stated in MPEP § 804, under the heading "Obviousness-Type," in order to form an obviousness-type double patenting rejection, a claim in the present application must define an invention that is merely an obvious variation of an invention claimed in the prior art patent, and the claimed subject matter must not be patentably distinct from the subject matter claimed in a commonly owned patent. Also, the specification and drawings of the patent principally underlying the double patenting rejection are not considered prior art.

The Applicant respectfully traverses the obviousness-type double patenting rejection. Claims 7 and 12 of the present application have been amended to recite that the predetermined bits include redundant bits and bits of data associated with the main

data. On the other hand, claim 6 of the '667 application does not recite that the predetermined bits include redundant bits and bits of data associated with the main data. Therefore, it is respectfully submitted that the claims of the present application are not a timewise extension of the invention as claimed in the '667 application. Reconsideration and withdrawal of the obviousness-type double patenting rejections are requested.

Paragraph 3 of the Official Action rejects claims 1-7 as obvious based on the combination of U.S. Patent No. 5,835,508 to Kushita and U.S. Patent No. 5,457,705 to Todoroki. Paragraph 13 of the Official Action rejects claim 8 as obvious based on the combination of Kushita, Todoroki and U.S. Publication No. 2003/0167425 to Bader. Paragraphs 16-19 of the Official Action appear to reject claims 9-12 as obvious based on various combinations of Kushita, Todoroki and Bader. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See

also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claim 1 has been amended to recite, among other features, that the bit adding part operates to add bits of association data to each of bits of the main data instead of the redundant bits to produce the hybrid bit data when it is decided by the data transmission characteristic measuring part that the environment of the communication path is non-defective, the association data being associated with the main data and obtained by utilizing additional information for expansion of services. Independent claims 9 and 11 have similarly been amended to recite, among other features, that the bit adding step performs a process of adding bits of association data to each of bits of the main data instead of the redundant bits to produce the hybrid bit data when it is decided in the data transmission characteristic measuring step that the environment of the communication path is non-defective, the association data being associated with the main data and obtained by utilizing additional information for expansion of services. These features are supported in the specification, for example, at page 12, lines 5-16. Also, claims 1, 9 and 11 have been amended to remove features which are not believed to be critical to the patentability of the claims.

Also, claim 1 has been amended to recite a data transmission characteristic measuring part for measuring a data transmission characteristic in a communication path, wherein the bit adding part operates to acquire a value of the data transmission characteristic from the data transmission characteristic measuring part and to decide quality of an environment in the communication path on the basis of the level of the acquired value of the data transmission characteristic. Claims 9 and 11 have been amended to recite similar features as appropriate to method claims.

Furthermore, independent claims 7, 10 and 12 have been amended to recite adding predetermined bits to respective bits of main data, the predetermined bits including redundant bits and bits of data associated with the main data.

The Applicant respectfully submits that Kushita, Todoroki and Bader, either alone or in combination, do not teach or suggest at least the above-referenced features of the present invention.

For example, the Official Action asserts that Kushita teaches "wherein the bit adding part operates to decide quality of an environment of a communication path, add, when it is decided that the environment of the communication path is defective, redundant bits of main data to produce the hybrid bit data" (Paper No. 20090227, Page 5). However, it is respectfully submitted that Kushita fails to teach or suggest that the bit adding part operates to <u>add bits of association data to each of bits of the main data</u> instead of the redundant bits to produce the hybrid bit data when it is decided by the data transmission characteristic measuring part that the environment of the communication path is non-defective, <u>the association data being associated with the main data and obtained by utilizing additional information for expansion of services</u>. To the contrary, Kushita explicitly discloses "only the information data ... are transmitted when the channel has a good channel quality" (Kushita, Abstract and Summary of the Invention, column 2, lines 29-32).

Todoroki and Bader do not cure the deficiencies in Kushita. The Official Action appears to concede that Todoroki fails to disclose "add, when it is decided that the environment of the communication path is non-defective, respective bits of associated data associated with the main data to the respective bits of the main data instead of the redundant bits to produce the hybrid data" and then contradictorily asserts that Todoroki teaches the same feature (Paper No. 20090227, Pages 5-6). In any event, it is respectfully submitted that Kushita and Todoroki fail to teach or suggest, either alone or in combination, that the bit adding part or step operates to add bits of association data to each of bits of the main data instead of the redundant bits to produce the hybrid bit

data when it is decided by the data transmission characteristic measuring part that the environment of the communication path is non-defective, the <u>association data being associated with the main data and obtained by utilizing additional information for expansion of services</u>. Also, while the Official Action asserts Bader to allegedly teach "the data [recovering] part operates to decide validity of the combined data formed by combining the added bit data in accordance with a cyclic redundancy check" (Paper No. 20090227, Page 10), it is respectfully submitted that Bader is silent as to the above mentioned features of the present invention.

Furthermore, with respect to claims 7, 10 and 12, the Official Action asserts that Kushita teaches "adding predetermined bits to respective bits of main data obtained by adding predetermined bits to respective bits of main data" (Paper No. 20090227, Page 8). However, it is respectfully submitted that Kushita does not teach or suggest, either alone or in combination with Todoroki and Bader, that the predetermined bits include redundant bits and bits of data associated with the main data.

Since Kushita, Todoroki and Bader do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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